List of interferences in urinalysis by dipstick

Glucose:

Interferences:

False Positive	*False Negative*
Urine samples with a pH of 9.0 and greater, hypochlorite, contamination with oxidizing agents and detergents	Delayed processing and prolonged exposure at room temperature; high specific gravity; ascorbic acid (>3 mmol/L); acetylcysteine; captopril; mesna; curcuma; ketone bodies

Bilirubin:

Interferences:
Atypical colors may indicate the presence of bile pigment abnormalities and the urine should be tested further.

False Positive	*False Negative*
Metabolites of Etodolac (may also cause atypical results); Indican (indoxyl sulfate); p-aminosalicylic acid; metabolites of drugs which give a color at low pH (e.g. Pyridium)	Indican (indoxyl sulfate); acetylcysteine; ascorbic acid; boric acid; hypochlorite; captopril; mesna; nitrite; curcuma; citric acid; chlorhexidine, or oxalic acid; improper storage or light exposure

Ketones:

Interferences:

False Positive	*False Negative*
Highly pigmented urine; levodopa metabolites; free sulfahydryl drugs (mesna, captopril, N-acetyl cysteine); curcuma; formalin; imipenem; hydrochlorothiazide	Boric acid; formalin; hypochlorite; meropenem; Lodine

Specific Gravity:

Interferences:
The Multistix test is not affected by radiopaque dyes, while those measured with a refractometer are affected.

False Positive	*False Negative*
Multistix: Moderate quantities of protein Refractometer: Dextran solutions, IV radiopaque dyes, proteinuria.	Multistix: Highly buffered alkaline urines.

Blood:

Interferences:
Lysed erythrocytes may cause discrepancies with microscopy.

False Positive	*False Negative*
Peroxidases (e.g. microbial); strong oxidizing agents (e.g. hypochlorite)	Captopril and other sulfhydryl compounds; acetylcysteine; ascorbic acid; formalin; quinidine; cefoxitin; levodopa; mesna; Keflin; curcuma; Lodine; hydrochlorothiazide; metformin; chlorhexidine; chloroquine.

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pH:

Interferences:
Bacterial growth may cause a marked alkaline shift (pH>8.0) because of urea conversion to ammonia if specimen is left at room temperature for more than 4 hours.

Protein:

Interferences:

False Positive	*False Negative*
Highly buffered or alkaline urine (pH>9.0); prolonged exposure at room temperature due to change in the pH; quinidine; chlorhexidine; chloroquine; lodine; hemoglobin; pigmented specimens; quaternary ammonium compounds; high specific gravity	Primary protein is not albumin (e.g. Bence-Jones protein, curcuma.)

Urobilinogen:

Interferences:

False Positive	*False Negative*
Elevated nitrite levels; phenazopyridine; any other Ehrlich's reactive substance (porphobilinogen, indicans); atypical colours caused by sulfonamides; p-aminobenzoic acid; p-aminosalicylic acid; beet ingestion; methyldopa; procaine; chlorpromazine	Formalin; improper storage; acetylcysteine; captopril; hypochlorite; mesna; Tagamet; curcuma; Lodine; sulfamethoxazole; chlorhexidine; glucose; hydrochlorothiazide; lactose; meropenem; or nitrofurantoin.

Nitrite:

Interferences:

False Positive	*False Negative*
Highly colored substances; curcuma or beet ingestion; improper storage with bacterial proliferation	High specific gravity; ascorbic acid; oxalic acid; Lodine; formalin; chlorhexidine; various factors that inhibit or prevent nitrite formation despite bacteruria (e.g. nitrate reductase negative bacteria, lack of urine nitrate, presence of antibiotics, insufficient time for bacteria to reduce nitrate, or large quantities that convert nitrite to nitrogen).

Leukocytes:

Interferences:
Detects esterase activity from either intact or lysed granulocytic leukocytes. Lysed granulocytic leukocytes may produce apparent discrepancies between positive dipstick and negative microscopic results. Lymphocytes do not produce a positive reaction.

False Positive	*False Negative*
Highly colored substances; vaginal contamination of urine; formalin; curcuma	High specific gravity; glycosuria; ketonuria; proteinuria; oxalic acid; ascorbic acid; boric acid; strong oxidizing agents; quinidine; Tagamet; glycine; chloroquine; sulfamethoxazole; chlorhexidine; nitrofurantoin; Lodine; drugs such as tetracycline, gentamicin, and cephalosporin.